

ters. so that the combination of any
 one male
 cell with any one female cell is one
 of many
 possible combinations, each of which
 might have
 produced an individual possessing some
 characters
 peculiar to itself. An element of
 chance is thus
 introduced into the formation of
 offspring which
 must contribute very greatly to the
 variety of life.
 The origin of the changes—whether
 fluctuations
 or mutations—that occur in
 individuals, and are
 the steps by which new species may
 arise, remain
 a mystery, unless we ascribe them to
 an inherent
 or "bathmic" changefulness of Life,
 assisted by
 the clash that results from the
 meeting of the
 male and female elements in sexual
 reproduction.
 Darwinists and Mendelists agree in
 holding that
 the changes are purposeless—that
 they may be
 injurious or beneficial, and if beneficial
 are only
 so incidentally. If they are
 injurious they are
 eliminated by the struggle for life.
 If they are
 beneficial they are established,
 according to the
 Darwinian hypothesis, by the
 assistance they
 afford to their possessor;
 according to the
 Mendelian belief they can become fixed
 by their
 own vitality, irrespective of environal
 influences.
 Mendelism can, therefore, explain the
 establish-
 ment of changes that are neutral—
 neither in-
 jurious nor beneficial—which, on the
 Darwinian
 theory, would have little chance of
 persistence.
 Darwinists are, accordingly, put to it to
 discover
 some positive utility in all peculiarities

that have survived. Vast numbers of these are obviously useful, and, as knowledge extends, utility is discovered in characters the practical value of which was at first not apparent. But it is hardly possible to believe that utility underlies all that is curious and beautiful in the animal and vegetable worlds. It has been shown that, in some cases, colours may be protective; but